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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------|------------------|
| 10/660,720 | 09/12/2003 | Susumu Sasaki | 501.43139X00 | 7650 |
| 20457 | 7590 | 04/06/2006 | | |
| ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873 | | | EXAMINER SANTIAGO, MARICELI | |
| | | | ART UNIT 2879 | PAPER NUMBER |

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/660,720 | SASAKI ET AL. | |
| | Examiner | Art Unit | |
| | Mariceli Santiago | 2879 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 23 January 2006.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.

5) ☒ Claim(s) 6 and 7 is/are allowed.

6) ☒ Claim(s) 1-5 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/31/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Amendment, filed on January 23, 2006, has been entered and acknowledged by the Examiner.

Claims 1-13 are pending in the instant application.

The Substitute Specification filed on November 14, 2003 has been entered.

Election/Restrictions

Claims 8-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on January 23, 2006.

The traversal is on the grounds that in light of the amendment of claim 10 of Invention II, the method as claimed in such claim of Invention II, as amended, is coextensive with the product as claimed in Invention I, thus, the Examiner's comments concerning possibilities of different processes do not relate to the claimed subject matter, as amended. This is not found persuasive because the method as claimed is not considered to be coextensive with the product as claimed. The product as claimed can be manufactured by another and materially different process, particularly, as evidenced by reference to Oki et al. (JP 2000-348599) which discloses the manufacture of the electron sources by deposition of a material containing boron over the cathode lines, differing from the claimed method of adhering boron to the already deposited electron sources. Accordingly, the restriction requirement between Inventions I, directed to product, and Invention II, directed to the manufacturing method, is sustained.

Art Unit: 2879

Applicant's arguments regarding the restriction requirement between Species I and Species II of Invention I are persuasive, thus the restriction requirement between these two species is hereby withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Oki et al. (JP 2000-348599 A).

Regarding claim 1, Oki discloses a display device comprising a back panel which includes a plurality of cathode lines (2), a plurality of electron sources (4) which are arranged on the plurality of cathode lines, control electrodes (6) which are arranged to face the cathode lines in an opposed manner and control an emission quantity of electrons from the electron sources, and a back substrate (1) which holds the cathode lines, and a face panel which includes anodes and fluorescent materials (Paragraph [0016]), wherein the control electrodes include a plurality of small apertures (3) which allow electrons emitted from the electron sources to pass therethrough to the face panel side at respective regions which face each electron source, and each respective electron source is divided into a plurality of small electron sources corresponding to the plurality of respective small apertures provided in each region, and the small electron sources contain boron (Paragraph [0009]).

Regarding claims 2 and 3, Oki discloses a display device wherein boron is arranged on control-electrode-side surfaces and on cathode-line-side surfaces of the small electron sources (Paragraph [0020], where the boron containing emissive material is deposited on the cathode lines 2, thus, being arranged in both the control-electrode-side surfaces and on cathode-line-side surfaces of the small electron sources).

Regarding claim 4, Oki discloses a display device wherein boron is arranged on surfaces of the cathode lines with respect to a plurality of small electron sources in common (Fig. 3).

Regarding claim 5, Oki discloses a display device wherein the area of a small electron source is set smaller than the area of the small aperture which corresponds to the small electron source (Fig. 4).

Allowable Subject Matter

Claims 6 and 7 are allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 6, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 6, and specifically comprising the limitation of each respective electron source is divided into a plurality of small electron sources corresponding to the plurality of respective small apertures provided in each region, and the small electron sources and the control electrodes contain boron. Claim 7 dependent upon claim 6 is allowable for substantially the same reasons.

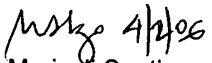
Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mariceli Santiago
Primary Examiner
Art Unit 2879